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MEXICO'S PRODUCTION OF HORTICULTURAL PRODUCTS FOR EXPORT

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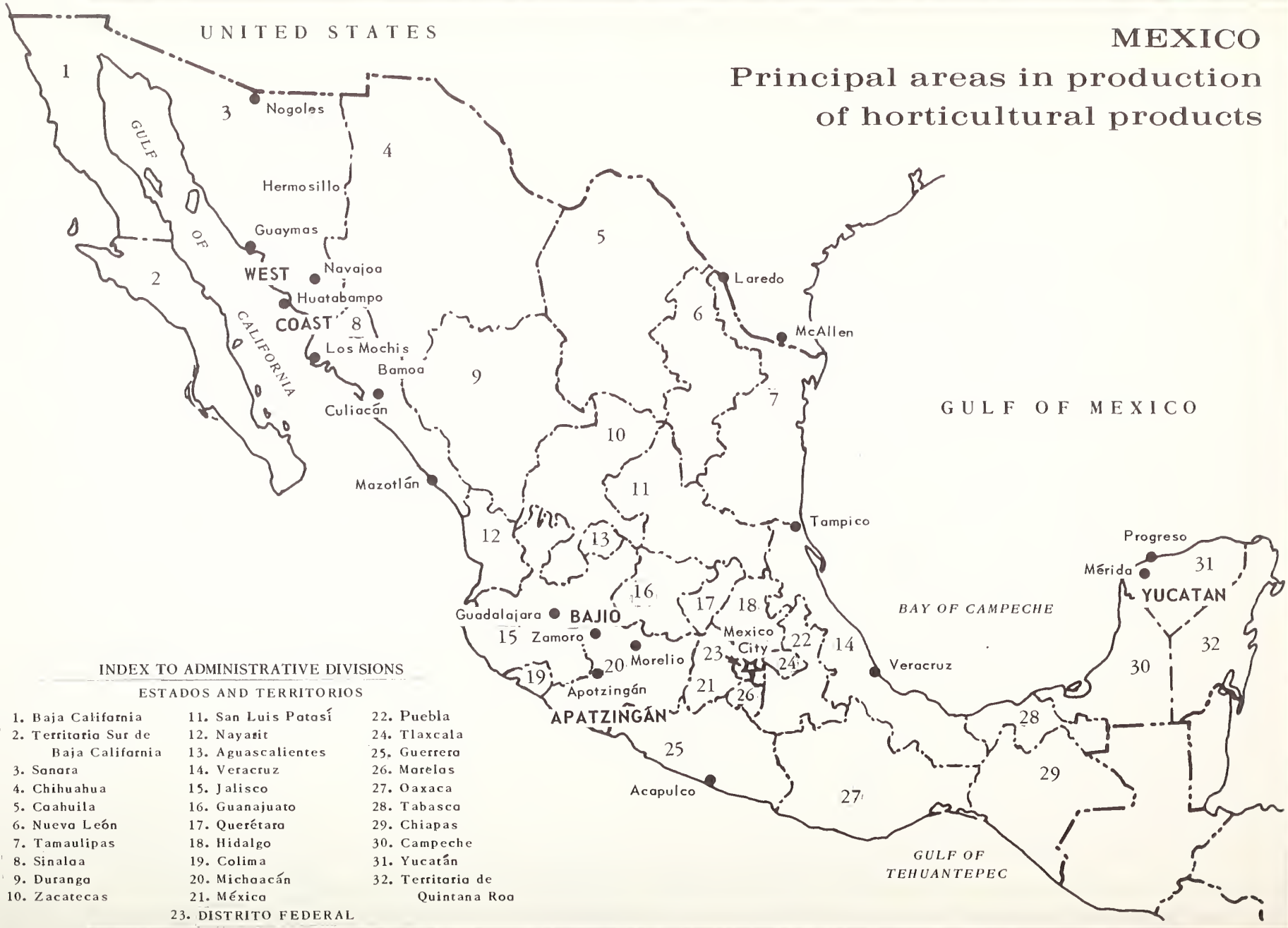

INDEX TO ADMINISTRATIVE DIVISIONS

ESTADOS AND TERRITORIOS

1. Baja California
2. Territorio Sur de Baja California
3. Sonora
4. Chihuahua
5. Coahuila
6. Nuevo León
7. Tamaulipas
8. Sinaloa
9. Durango
10. Zacatecas
11. San Luis Potasí
12. Nayarit
13. Aguascalientes
14. Veracruz
15. Jalisco
16. Guanajuato
17. Querétaro
18. Hidalgo
19. Colima
20. Michoacán
21. México
22. Puebla
23. DISTRITO FEDERAL
24. Tlaxcala
25. Guerrero
26. Morelos
27. Oaxaca
28. Tabasco
29. Chiapas
30. Campeche
31. Yucatán
32. Territorio de Quintana Roo

Foreword

Mexico ships sizable quantities of horticultural products to the U.S. market and will very likely continue as a major supplier. Although most of these products come in during the winter when U.S. output is limited, some—especially strawberries and tomatoes—compete with the U.S. winter and early spring crops. Under these circumstances, the progress of Mexico's horticultural production, processing, and exports should be of substantial interest to the U.S. horticultural industry.

The most recent FAS publications on this topic were *Mexican Strawberry Output Reaches New Peak* (FDAP 2-66) issued in April 1966 and *Survey of Mexican Vegetable and Melon Production* (FAS M–178) issued in July of the same year. This report supercedes both and highlights the changes that have taken place since they were published. One of the most significant of these is the move by strawberry producers and processors to diversify their production to include many of the other horticultural products covered herein. As a result, the strawberry industry—once almost an entity unto itself—has become closely interrelated with the production and processing of other produce.

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Contents

	Page
The Bajio	1
Strawberries	1
Other crops	2
The West Coast	3
Major crops	4
Grower associations	5
Transportation and marketing	6
Processing	6
Diversification	6
Apatzingán	7
Yucatán	7

Mexico's Production Of Horticultural Products For Export

by William J. Higgins
Fruit and Vegetable Division

Mexican horticultural products are grown primarily in two areas—the Bajio in central Mexico and the West Coast opposite the peninsula of Lower California. Of less importance, but certainly worth mentioning, are two other areas—Apatzingán and Yucatán.

In the Bajio strawberries have been and will continue to be the most important horticultural crop grown and processed although growers, as well as processors, are taking more and more interest in diversifying production. The hub of Mexico's canning industry, this area is becoming an important center for freezing vegetables for export. Shipments of fresh vegetables from this area can also be expected to increase.

Changes in the horticultural industry on the West Coast have not been so pronounced as those in the Bajio. However, the significance of this vegetable- and melon-producing area has not diminished, and the value of its exports exceeds that of exports from any other area. Growing operations are concentrated primarily in the State of Sinaloa although they extend somewhat into neighboring Sonora. Production—especially of tomatoes—in the Culiacán Valley continues to expand, not so much because of increasing acreage as from bigger yields.

Farmers in Apatzingán, south of the Bajio, produce primarily cantaloupes, watermelons, onions, and cucumbers. The latter are produced chiefly for pickling, while the melons and onions are shipped fresh. In the future this area is expected to decline in importance as an exporter of horticultural products.

Yucatán, although not an important exporting area at the present time, has attracted attention as a potential one. Tomatoes, cucumbers, and eggplant, among other vegetables, are being grown successfully, but lack of financing and efficient transportation keeps the industry from taking any great strides.

The Bajio

The Bajio, which means low area, is a valley stretching across the major portion of the State of Guanajuato and the bordering State of Michoacán. Although the valley is roughly 3,700 feet to over 5,000 feet above sea level, it is surrounded by mountains; hence the name.

The Bajio extends from León and Irapuato on the north to Zamora on the west and Morelia on the east. Apatzingán in the south is not considered part of the Bajio and differs in both commodities grown and the size of operations.

Strawberries are by far the major crop grown in the Bajio, and Mexico's commercial production is concentrated in the two States that share the valley. These, as well as other processing crops, are cultivated under irrigation primarily from wells although some irrigation from rivers is possible.

Strawberries

Production.—Strawberry acreage in the State of Michoacán fell from 2,900 hectares (7,163 acres) in 1966-67 to 2,100 hectares (5,187 acres) in 1967-68, but the reduced acreage has been offset by increased yields. This increase—from 50 to 90 percent—has resulted largely from a shift from Klondyke to fresh-market varieties—Fresno, Solano, and Tioga.

In Guanajuato strawberries are having a difficult time competing not only with strawberries grown in Michoacán, but also with other crops. Most of the berries were once grown around Irapuato, but now the fields must be fumigated prior to setting out new plants. Since fumigants must be imported, the cost is high. As a result,

although about half the strawberry production is still in the Irapuato area, it is shifting to the Zamora area because costs there are lower and the flavor of the berries produced is considered superior to that of berries grown in Irapuato, where the salt content of the water is high. Berries are trucked from Zamora to Irapuato and Morelia freezing plants in addition to plants in Zamora and the neighboring town of Jacona.

Berries have usually been set out in fields in the spring, but some growers have found that planting in late October or early November is a better practice since the fields do not have to be maintained for the extra 6 to 7 months. As in the past, growers use their own fields as a source of new plants.

Cultural practices and financing arrangements are largely unchanged from those described in FDAP 2-66. Growers have been faced with higher labor costs due to government-granted raises and fringe benefits, but the higher labor costs have been offset by increased yields so that overall unit costs of production have remained stable. Other related cost increases have also been assimilated by the increased productivity.

Marketing.—Probably the most significant change in the Mexican strawberry picture is a new awareness of marketing strategy. Prior to the huge crop in 1965-66, the area was going through a period of seemingly endless expansion in acreage and production facilities. Although commercial production started in 1948, most of the expansion has occurred in the last decade.

Following the big crop, growers and freezers realized that emphasis on production alone was insufficient. They became aware that marketings must be geared to what could be sold to freezers at profitable prices. Currently about half of the freezers are operating only marginally or not at all. Others are expanding operations to include other commodities, and some have converted their freezing lines to processing fruit juices or nectar concentrates (pineapple, apricot, and pear).

Prices to growers at the time of the survey were $1.60 for 11 pounds (20 pesos per 5-kilo flat) for fresh berries and about 6½ cents per pound (1.75 pesos per kilo) for berries used for freezing.

Exports to the United States.—U.S. imports of frozen strawberries from Mexico reached a peak of 82.9 million pounds in 1965-66. The resulting low prices, coupled with adverse weather, brought a reduction in imports the following year. Imports of frozen berries during January-March 1968 (Table 1) were about twice those of the comparable period in 1967. However, imports during April were less than half as large as in April 1967, so that total imports through April were about the same as those of last year. Processors and growers in the Bajio expect total 1967-68 exports to be no larger than in the previous season. The freezers believe that under present conditions exports should be in the neighborhood of 70 million pounds.

The frozen berries are trucked to the United States, with the bulk of the shipments entering at Laredo. The 30-pound can of whole berries is the standard pack although some berries are sliced upon order. Some processors are individually quick freezing (IQF) selected large berries, but IQF installations are limited to a few processors.

During the current year, excess berries have been shipped fresh. Fresh shipments have increased materially this season, largely because of the voluntary restrictions on frozen berries. (See Table 2.) Reports indicate that grower associations are again discussing acreage restrictions for next season to enforce their orderly marketing plans. Similar efforts in the past, however, have not been effective.

Shipments of fresh strawberries can be expected to continue to increase. The growers ship their best size and quality berries to fresh markets and the balance to the freezers. About 75 percent of the fresh berries coming to the United States enter at McAllen, Texas, and most of the remainder cross at Laredo in the same State. Mexican fresh berries are also being airfreighted to Europe via the United States and Mexico City.

Other crops

Production.—Strawberries are and will continue to be the principal crop grown in the area, but diversification has become of major concern to most growers. Processors also are trying to diversify so as to spread their risks and extend their operations over a longer period of the year. The strawberry season lasts only about 5 months, with peak deliveries to the freezers during early March. If crops could be processed prior to and following the strawberry season, overhead on the plants could be reduced. There may be some overlap on harvesting seasons, but processors are more interested in expanding their processing seasons.

Growers are experimenting with various vegetable crops, of which asparagus is currently creating the most interest. Plantings were started about 3 years ago by direct seeding. Now, entire fields are being planted using crowns from the direct-seeded beds. Most of the asparagus is being canned and frozen, but some fresh shipments have been made on an experimental basis. Other crops being tried are broccoli, brussels sprouts, and sweet peppers. The broccoli is frozen as spears and cropped, and the peppers are frozen diced. Some brussels sprouts have been shipped fresh.

Growers in the Zamora area are experimenting with fruit trees, with an aim of growing fruit for canning. Cling peaches and pears are the most popular. Several thousand young trees have been set out as nursery stock. Since these trees will be used to propogate orchards, production will not become a factor for some time even if the venture is successful.

Processing.—The bulk of Mexico's expanding canning industry is concentrated in the Bajio, where all the plants are operated by U.S. firms. Canners in the Irapuato area are enlarging their plants and adding additional vegetables to their lines. One firm is currently packing more than 20 different vegetables and products. Another U.S. firm is operating a freezing plant in Celaya that formerly dehydrated onions and garlic. The plant operated this season on a small basis freezing broccoli and some asparagus. All production was for export.

The canning plants have supplied the Mexican market in the past, but small quantities have been exported. This varies by commodities and products. Soups and fruits, for example, are strictly for the Mexican market. Tomato products have been exported, but the Mexican demand is increasing as diets improve and become more varied.

The plants maintain excellent quality control laboratories, and packs are comparable to those of their U.S. counterparts. The canning firms work closely with growers in crop production. In some cases, such as with asparagus, they will finance or extend credit for growing costs while a new crop is being tested or during the time interval between planting and harvest.

The expansion of the canning plants' operations, the new freezing operations, and the diversification by strawberry growers has resulted in competition for acreage. Asparagus will probably benefit most from this competition since it can and will be shipped fresh, frozen, and canned. It is planned that most of the asparagus planted will be cut green for fresh shipments or freezing.

Growers and processors will continue to search for new commodities for export and for new land in order to expand into other commodities. There is no reluctance in Mexico to hauling raw products long distances for processing. For example, pineapples are trucked from the State of Veracruz to Michoacán for freezing, a distance of about 400 miles.

The West Coast

U.S. fresh vegetable and melon imports from Mexico come mainly from the West Coast, with the major producing area in the Rio Culiacán Valley. Vegetables and melons are grown around Caborca, Guaymas, Navajoa, and Los Mochis, but the big shift has been to Culiacán where the weather is not so great a risk as in the more northern areas. Watermelons are grown in Sonora, particularly around Guaymas, and cantaloupes in the Bamoa area. Tomato production has shifted largely to the Culiacán Valley.

The principal weather factors in the West Coast area are frosts and hail, particularly in Sonora, and occasional heavy rains during the growing season. Rains are rare during the peak harvesting season (February and March), but 1968 was an exception. Unusual rains in late February resulted in a serious late blight problem which reduced total tomato yields substantially.

The irrigation projects on the Humaya and Culiacán Rivers are continually being expanded. The present system is being interconnected, and holding reservoirs are being built to contain the overflow from present dams. Irrigation canals are being lined with concrete, and flood gates are being built in secondary canals. An important addition to the irrigation system in Sinaloa will be the new dam on the San Lorenzo River. This dam will open nearly 100,000 hectares (247,000 acres) of land for cultivation. It is not expected to be completed for at least 3 more years, but some water from the San Lorenzo is being used now in the Culiacán Valley.

The West Coast produces a variety of crops—cotton, wheat, rice, safflower, sugarcane, and sorghum—but these crops have little effect upon vegetable acreage. The acreage of many crops, such as sugarcane, is controlled by the

refining capacities of processing facilities. In Sinaloa the acreage devoted to vegetable production accounts for only 5 percent of the irrigated land in production. In the Los Mochis area, production of wheat, rice, and corn is increasing, and vegetable production is moving southward.

Vegetables for export are grown on large farms. The smallest are at least 100 hectares (247 acres) and the larger farms cover several hundred hectares. Most of these farms have their own packing houses. In some cases two or three farmers will operate a packing house jointly. There are about 40 packing sheds operating in the Culiacán Valley.

Major crops

Tomatoes.—Tomatoes retain their position as the most important vegetable grown on the West Coast and return 63 percent of the value of total fresh vegetable and melon exports from Mexico. Production is now and will continue to be concentrated in Sinaloa. Weatherwise, the Culiacán Valley is the most ideal area for tomatoes. Frosts in the Los Mochis and Guayamas areas have resulted in the shift to Culiacán. Hot weather often delays planting in the Culiacán Valley, but other advantages offset this factor.

Agricultural leaders in Sinaloa recommend continued expansion of tomato production for export. While Sinaloa is the leader in production of other vegetable crops, expansion prospects for these are more limited because the demand can be dampened by gluts on terminal markets. Most Mexican growers, however, feel that there is no conflict between U.S. domestic tomato crops, particularly the Florida crop, and theirs. They maintain that imports from Mexico complement the Florida crop. Further, they feel that their costs of production, other than labor, are higher than those in the United States, so that costs are equalized. Mexican growers are very cost conscious and maintain cost records for every operation and expense connected with the growing and handling of their tomatoes. These costs are usually figured in unit costs per package. Yields, for example, are figured in terms of exportable packages per hectare.

Yields have increased within the past 2 years. The average yield in 1965, according to growers, was probably 900 to 1,000 22-pound export-quality flats per hectare (440 flats per acre). Yields now average about 1,500 flats per hectare. This season, of course, will be an exception because of the late blight. Growers expect the yields this season to be about 25 percent lower than average.

The higher yields are primarily due to increased fertilizer applications. Two years ago total application was around 800 pounds per acre. It has now been increased to about 1,200 pounds per acre.

In addition to the increased use, and therefore cost, of fertilizer, dusting and spraying expenses have also increased, so growers explain that their cost per hectare now runs from 16,000 to as high as 20,000 pesos per hectare, compared to 12,500 pesos 2 years ago. This represents an increase from $400 per acre to $500-$600 per acre. This does not include land or harvesting costs, and for stakes it takes in only replacement costs. Stakes are replaced every third year.

Growers report that 60 percent of the crop is exported to Nogales. The remainder is packed for local markets—Guadalajara, Mexico City, Torreón, and Monterey. These tomatoes, equivalent to U.S. No. 2 and No. 3, are packed in 80-pound crates and return about 35 pesos ($2.80) per box. There is a ready domestic market at this price, but local markets will not pay higher prices, and growers cannot grow tomatoes profitably at these prices for the domestic markets. The export flat of 80 percent U.S. No. 1 or better quality is too expensive for local consumption.

Cherry tomato production has been increasing rapidly in the past few years. While cherry tomato acreage is probably no more than 5 percent of the vine-ripe acreage, most tomato growers also grow some cherries. They are packed in plastic, cardboard, or wood pint berry baskets and shipped 12 to a flat. They are usually shipped in trailers with vine-ripe tomatoes, which constitute the bulk of the shipment.

Cucumbers.—Cucumbers have become the second most important crop for many growers in the Culiacán Valley. Production continues to increase, but this is a crop where production must be correlated to demand. While there is some production in the Apatzingán area, most cucumbers are grown in the Culiacán area.

Growers and shippers experienced in handling this crop in Florida usually supervise production and packing. Packs vary depending upon sizes of the cucumbers and availability of containers. Most are packed in 40-pound wirebound crates, but fiberboard boxes are used when necessary. The fiberboard boxes are more expensive and are

used only when wire bounds are not available. Jumbos and the larger size ranges of the selects are packed in fiberboard peck baskets or flats. Some cucumbers are repacked at Nogales into bushel baskets, but this is not the common practice.

Most tomato growers also grow cucumbers. While the quantity exported must be geared to the market demand and price levels, there are more possibilities for a gradual growth in cucumber exports than in those of other vegetable crops. Quality and sizes are good, and they can be shipped long distances.

Growers have successfully overcome many of the production problems encountered a few years ago. Further improvements in techniques may be expected with experience and with better varieties. The experiment station in Sinaloa has developed a new variety which the industry believes will be more adaptable to the West Coast.

Bell peppers, eggplant, and other vegetables.—Bell peppers of good size and quality are grown successfully on the West Coast; however, this is one of the crops most susceptible to market gluts, so it must be marketed in an orderly manner. Eggplant has also been a success, but production is not widespread because demand is limited. Since Mexicans are not familiar with eggplant, there are no domestic markets, and the export market is the only outlet. Chili, Jalopena, and other hot peppers are grown for canning and for the domestic fresh market. Squash, green beans, small quantities of china peas, and some onions are also grown, but these crops are limited by demand or susceptibility to diseases. Some small acreages may be utilized for special crops such as vegetable seeds, but these are usually under contract to a U.S. seed company.

Asparagus is a relatively new crop to the area, but test plantings have not been promising. There is some acreage in the Navajoa area, but the dormant season is too warm for asparagus, so it does not do so well as in northern Sonora. No extensive plantings are contemplated at this time on the lower West Coast.

Cantaloupes and watermelons.—Among vegetables and melons, cantaloupes remain the second most important crop grown on the West Coast, but the period of rapid expansion has been stemmed. The fast growth which is so characteristic of other vegetable crops has not occurred with cantaloupes because acreage has not increased nor have yields improved as substantially as those of the other crops. This is particularly true in the Culiacán Valley where the main emphasis is on tomatoes. Cantaloupes present a greater risk. Mildew, viruses, and pests are problems, to say nothing of the critical effects of weather on the young plants.

Any marketing advantages in growing cantaloupes depends upon timing. The crop must come in early enough to insure a good volume of shipments prior to the start of the Yuma, Arizona, season. When a crop is damaged by hail, replanting may be required, but this is a gamble most growers cannot risk unless the bad weather occurs early enough to allow time for the crop to mature during the normal shipping season. Harvesting is usually mid-April to mid-June.

Like tomatoes, there are domestic outlets for the poor-quality melons but at prices much lower than for high-quality export melons, so growers cannot afford to grow solely for the domestic market. Imports into the United States this season will be reduced sharply due to bad weather during the growing season, particularly hail in late February in the Bamoa area, which is the principal producing area.

Watermelon acreage, like that of cantaloupes, has become more stable after the rapid increases of the past few years. Production is important in Sonora and Sinaloa. Although the Peacock is still the principal variety, some Greys are grown. Most melons grown on the West Coast are usually shipped in open-bedded straight trucks to Nogales; frequently, these melons are not uniformly sized. Mexican melons generally run to small sizes; so unlike other vegetables and cantaloupes, many loads are regraded and sized at Nogales. Arizona has a minimum weight restriction on watermelons; if the melons do not meet this requirement, the shipper has very limited outlets on the border. In January-April of this year, U.S. watermelon imports declined considerably from those of the same months of 1967.

Grower associations

Growers in the various river valleys have organized into associations. Confederación de Asociaciones Agrícolas del Estada de Sinaloa (CAADES) is a confederation of these associations, which vary in size, importance, and function. In the more developed areas of Sinaloa, the associations are large and prosperous. The two largest are in Los Mochis and Culiacán. They perform many of the services for growers usually provided by cooperatives in the United States. The association in Los Mochis, for example, has a fertilizer plant; in Culiacán, the association has

extensive storage bins for grain. In addition, the associations have certain regulatory powers on the production and marketing of commodities although for vegetables some of these powers have been delegated to the National Union of Vegetable Growers of Mexico. The union's headquarters are located in the Rio Culiacán Association's building.

Transportation and marketing

Both rail and highway facilities on the West Coast are good. About 70 percent of the vegetables are trucked to Nogales– the principal port of entry into the United States for West Coast vegetables–in big, modern, refrigerated equipment. Piggy-backs have regained for the railroads some of the tonnage they lost to trucks after 1955. About 30 percent of the total tonnage is now hauled in "pigs."

Trucks and "pigs" carrying produce for export are loaded at the packing sheds, most of which are located on the farms and are equipped with pre-cooling rooms. A modern ice plant in Culiacán provides facilities for top icing when necessary.

The piggy-back trains leave Culiacán at 5:00 p.m. each afternoon and arrive in Nogales at 9:00 a.m. the next morning. Trucks usually make the run from Culiacán to Nogales in about 18 hours. The "pigs" are slightly cheaper and faster, but the trucks are still preferred by some shippers since they are not bound by rigid schedules, and the refrigeration equipment and load can be checked more closely during transit. Shipments destined for Canada are usually hauled in refrigerated rail cars.

Freight, crossing charges, and duties are usually charged to the grower.

The produce is inspected at Nogales, Sonara, by USDA inspectors at a truck compound built by CAADES. The railroad yards are located just across the road. At the present time, all trailers must be pulled through the main streets of Nogales, Sonora, and Nogales, Arizona, to the sheds located north of the latter. However, a new bypass highway is being built to divert the traffic around the towns. Most of the trucks and piggy-backs are unloaded at the Nogales sheds. Only in rare cases are any packages repacked. In most instances the vegetables are unloaded and then reshipped in mixed loads or by sizes and in the case of tomatoes, by color.

Mexican growers have financial and marketing arrangements with U.S. firms, most of which are headquartered or have offices at Nogales. The usual selling procedure is to consign the produce to the broker in Nogales with whom the grower has a joint venture. When the produce is sold, the broker deducts all selling charges, and then he and the grower split the profits. Most growers maintain the Nogales f.o.b. price must be around $3.50 for a two-layer, 22-pound flat of tomatoes before they can realize any returns.

Processing

As mentioned previously, the Bajio is the major processing area. Processing on the West Coast is limited to canning plants at Huatabampo, Los Mochis, and a new plant built in the spring of 1968 at Culiacán. The Los Mochis plant is U.S.-controlled and packs tomato products and hot peppers.

The plant at Huatabampo was formerly operated in partnership with a U.S. canner, but joint operations have been discontinued and the plant is now completely Mexican controlled. It uses the American brand name–in Spanish rather than English–and packs corn and peas.

The new Culiacán plant was scheduled to open this spring and will process tomato paste. Plans for expansion include a complete line of tomato products–juice, peeled tomatoes, etc., and the possibility of other vegetables. This plant is Mexican-owned and operated.

Diversification

West Coast growers have not been as interested in diversification as those in the Bajio because they grow a variety of vegetables for the fresh market, as well as other crops such as safflower, rice, sugarcane, and cotton. Tomatoes for export will continue to be the chief crop. Some growers have set out new groves of mangos, avocados, and navel oranges. The young trees appear to be thriving, but the success or failure of these enterprises will not be known for some years.

Apatzingán

This area, in the State of Michoacán, is about 200 miles southeast of Guadalajara and about 225 miles west of Mexico City. Frosts are infrequent, but cool, cloudy weather can impede melon growth early in the growing season. All crops are grown under irrigation.

Production in this area has not increased as it has in other areas of the country. Cantaloupes are the principal export crop, and in recent years a large part of the crop has been controlled by the Melon Producers Association, a relatively powerful growers' association which has authority to establish regulatory measures. This area has a large number of ejidio lands, public lands parceled out to small growers. These farms are smaller than those found on the West Coast or in the Bajio, and acreages of melons are deliberately kept small by the association. The association has adopted a more aggressive policy in recent years with regard to outsiders renting land, so most melons are now packed in association facilities and sold to U.S. firms.

U.S. firms now concentrate their operations largely on purchases of cantaloupes, onions, watermelons, and cucumbers for pickling. In the past importing firms have gone into the area and controlled the growing and packing.

It is unlikely that production will increase materially from Apatzingán because of the association's policies, competition from other crops—cotton, in particular—and the economic risks of melon production. Apatzingán's advantage for melons is its early marketing season, but cantaloupes grown in the area are usually small, and yields are low. Cantaloupe growers in Apatzingán experience the same marketing situation as do West Coast growers: They must be able to take advantage of the early market in order to compete. Apatzingán melons are marketed from January to April.

The Apatzingán area is expected to continue to decline in importance as an export producing area, particularly if new lands are found in other areas of Mexico.

Yucatán

For several years now Yucatán has been looked upon as a potential producer of vegetables for export. The State Government has been anxious to improve the local economy and has shown interest in the development of a vegetable industry.

Developments to date indicate that production is no particular problem. Several vegetables, including tomatoes, cucumbers, and eggplant, can be grown successfully in the Mérida area. The chief problems are the lack of financing and transportation.

Exports must be shipped from the port of Progreso to Florida ports. Only about 4,000 tons of vegetables will be exported this season. To date, these shipments have been in small boats only. Latest reports indicate that two shipments per week in larger ships with a 40-hour run to Florida may be possible. If these schedules can be maintained, some exports from the Yucatán should materialize. However, exports from Yucatán will not have the advantages of those from the West Coast: shorter distances, excellent transportation both by rail and truck; less travel time, and service on a daily basis. The fact that the vegetables will be produced on ejidio land may also be a limiting factor.

Table 1.–STRAWBERRIES, FROZEN: U.S. imports from Mexico

Month	Average 1959-61	1962	1963	1964	1965	1966	1967	1968
	Million pounds	*Million pounds*	*Million pounds*	*Million pounds*	*Million pounds*	*Million pounds*	*Million pounds*	*Million pounds*
January	.3	.3	.7	.7	1.5	2.2	3.6	6.8
February	1.2	1.0	2.7	1.8	4.5	6.2	1.3	7.9
March	3.4	6.5	7.3	13.0	9.3	12.7	6.6	7.5
April	6.5	8.7	8.1	9.6	13.0	22.1	17.7	7.6
May	5.7	5.3	7.0	5.6	7.0	15.0	12.3	
June	2.9	6.0	3.4	4.2	5.9	7.3	9.6	
July	1.4	1.4	2.3	2.8	3.1	5.2	5.0	
August	.4	1.3	1.0	.8	1.9	3.3	4.8	
September	.4	.6	.6	.6	.6	2.5	3.8	
October	.4	.6	.5	.1	.9	1.7	3.9	
November	.1	.4	.4	.2	1.9	2.5	1.1	
December	.3	.2	.6	.3	2.2	2.2	3.0	
Total	23.0	32.3	34.6	39.7	51.8	82.9	72.7	

Table 2.–STRAWBERRIES, FRESH: U.S. imports from Mexico[1]

Month	Year beginning November[1]							
	1960	1961	1962	1963	1964	1965	1966	1967
	1,000 pounds	*1,000 pounds*	*1,000 pounds*	*1,000 pounds*	*1,000 pounds*	*1,000 pounds*	*1,000 pounds*	*1,000 pounds*
November	–	13	41	394	464	746	870	982
December	23	201	103	708	931	1,256	3,080	4,730
January	26	187	576	210	722	1,945	2,730	6,850
February	10	150	702	538	729	1,849	4,741	6,439
March	305	329	319	1,357	1,273	2,288	4,741	3,205
April	19	72	595	354	921	1,519	2,912	2,390
May	4	14	113	233	111	176	748	
Total	387	966	2,449	3,794	5,151	9,779	18,715	

[1] The Mexican season for fresh marketing begins in November of the year shown and ends in May of the following year.

Table 3.–U.S. imports of winter vegetables from Mexico

Commodity and year	December	January	February	March	April	May	June	July	Total
	1,000 cwt.	*1,000 cwt.*	*1,000 cwt.*	*1,000 cwt.*	*1,000 cwt.*	*1,000 cwt.*	*1,000 cwt.*	*1,000 cwt.*	*1,000 cwt.*
1963-64:									
Beans	12.4	17.0	10.3	6.9	17.2	6.8	0.6	0.7	71.9
Cucumbers	44.4	63.1	43.7	22.0	3.7	.1	.1	—	177.1
Eggplant	2.0	3.2	8.0	7.5	4.2	4.8	.4	—	30.1
Melons:									
Cantaloupes	—	—	4.0	152.7	278.3	473.7	384.7	3.7	1,297.1
Watermelons	—	5.6	14.8	66.9	81.0	137.9	251.1	11.5	568.8
Other melons	—	—	—	.5	5.2	14.3	1.3	—	21.3
Onions	64.4	90.0	53.1	132.0	20.8	—	—	—	360.3
Peas	5.4	12.2	17.2	14.2	3.9	.2	—	—	53.1
Peppers	11.1	19.6	32.6	32.9	12.4	8.3	2.7	.7	120.3
Squash	2.8	4.5	4.9	4.3	4.7	1.5	1.8	1.0	25.5
Tomatoes	103.5	321.0	519.1	528.3	347.1	535.2	89.9	6.9	2,451.0
1964-65:									
Beans	14.0	28.1	22.9	5.8	9.1	3.8	1.3	1.8	86.8
Cucumbers	37.3	97.9	148.3	4.5	19.6	.8	.1	.6	309.1
Eggplant	5.6	8.7	9.2	8.6	5.2	5.3	.1	.1	42.8
Melons:									
Cantaloupes	3.3	4.3	7.3	91.9	511.0	641.7	196.9	3.6	1,460.0
Watermelons	—	4.1	20.7	73.3	142.8	286.8	181.6	.9	710.2
Other melons	—	—	—	—	3.7	37.5	.7	.6	42.5
Onions	19.0	61.2	100.5	99.0	43.3	21.2	13.3	1.3	358.8
Peas	3.1	13.2	14.6	13.8	2.6	.7	—	—	48.0
Peppers	15.7	48.8	48.3	32.3	17.1	9.2	2.5	1.2	175.1
Squash	2.6	14.7	19.0	11.8	4.5	1.5	1.5	1.0	56.6
Tomatoes	93.7	370.5	445.6	577.3	558.7	409.4	106.6	6.1	2,567.9
1965-66:									
Beans	9.7	17.0	8.0	7.4	5.4	1.2	1.1	.3	50.1
Cucumbers	38.7	102.3	156.8	112.3	43.5	6.1	.1	—	459.8
Eggplant	6.5	11.9	12.7	11.7	5.9	6.2	.7	—	55.6
Melons:									
Cantaloupes	1.5	6.5	19.9	156.1	305.7	597.9	277.5	1.3	1,366.4
Watermelons	3.3	16.9	34.3	83.2	123.3	265.0	89.1	—	615.1
Other melons	—	—	—	—	9.3	32.4	2.2	—	43.9
Onions	35.9	84.8	79.8	117.7	70.1	30.5	5.4	1.5	425.7
Peas	2.2	4.3	20.9	21.9	6.4	.1	—	—	55.8
Peppers	14.6	43.3	69.7	51.7	39.8	6.5	4.0	.9	230.5
Squash	1.1	8.7	14.9	10.1	4.7	2.2	1.5	—	43.2
Tomatoes	127.1	403.2	708.6	688.0	807.6	513.3	79.6	12.3	3,339.7
1966-67:									
Beans	16.7	19.6	12.6	13.3	10.8	5.0	.4	2.2	80.6
Cucumbers	48.9	128.8	164.5	151.5	98.7	3.0	.1	—	595.4
Eggplant	7.7	12.9	26.0	9.7	6.9	10.5	2.0	—	75.7
Melons:									
Cantaloupes	—	—	2.6	90.1	384.0	543.3	149.0	2.9	1,171.9
Watermelons	1.3	15.2	12.6	68.2	171.4	229.8	137.1	.8	636.4
Other melons	—	.5	—	—	5.2	37.2	1.9	.2	45.0

Table continued on following page.

Table 3.–U.S. imports of winter vegetables from Mexico – Continued

Commodity and year	December	January	February	March	April	May	June	July	Total
	1,000 cwt.	*1,000 cwt.*	*1,000 cwt.*	*1,000 cwt.*	*1,000 cwt.*	*1,000 cwt.*	*1,000 cwt.*	*1,000 cwt.*	*1,000 cwt.*
1966-67–Continued									
Onions	60.3	92.6	93.2	123.9	17.1	3.1	—	—	390.2
Peas	3.1	13.6	22.6	10.9	.7	.2	—	—	51.1
Peppers	24.7	63.3	70.0	50.8	39.7	14.3	4.1	2.5	269.4
Squash	8.1	25.4	45.7	25.2	8.0	1.4	1.3	.1	115.2
Tomatoes	237.9	519.6	721.0	667.4	690.1	601.9	215.2	46.5	3,699.6
1967-68:									
Beans	4.9	22.1	14.6	8.4	8.5				
Cucumbers	30.7	109.3	222.9	115.7	77.7				
Eggplant	3.7	16.5	21.6	13.1	21.7				
Melons:									
Cantaloupes	—	—	3.0	104.7	269.0				
Watermelons	5.6	11.2	42.9	82.4	135.0				
Other melons	—	—	—	1.5	7.4				
Onions	56.2	142.2	119.8	164.1	176.9				
Peas	.4	8.8	18.6	7.0	2.9				
Peppers	26.6	54.1	69.5	40.2	23.9				
Squash	2.9	21.8	25.7	12.7	7.5				
Tomatoes	89.8	491.2	811.9	566.6	604.9				

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